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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,082	03/31/2004	Edward K. Y. Jung	0104-003-002-000000	9452

7590

12/14/2006

SEARETE LLC
1756 114TH AVENUE S.E.
SUITE 110
BELLEVUE, WA 98004

EXAMINER

HUYNH, NAM TRUNG

ART UNIT

PAPER NUMBER

2617

DATE MAILED: 12/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/816,082	Applicant(s) JUNG ET AL.	
	Examiner Nam Huynh	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/31/04</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-9, 12-20, and 23 are rejected under 35 U.S.C. 102(a) as being anticipated by Burns et al. (US 6,088,665).

A. Regarding claims 1, 2, 9, 12, 13, 20, and 23, Burns et al. discloses a schematic generator for use in a process control network having distributed control functions. In the scope of the invention, a process control network comprises a host connected to a set of field devices (motes), which are "smart" devices in that they each include a microprocessor capable of communication and, in some cases, control functions (column 5, lines 35-53). The schematic generator of the invention is capable of interrogating each of interconnected field devices connected within a process control network to retrieve linkage data stored in each of the devices. This data may be any data including function process control function data indicating one or more function blocks capable of being performed by each of the devices (mote-addressed control index) (column 3, lines 45-56). Therefore the field devices, in response to the interrogation of the schematic generator, may transmit the function data since the schematic generator receives this data.

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B. Regarding claims 3 and 14, Burns et al. discloses that the schematic generator may identify an address at which a device is connected to the bus (column 19, 14-17).

C. Regarding claims 4 and 15, Burns et al. discloses that the schematic generator may receive data from one or more link master devices (reporting entity) connected within each segment of the bus (column 14, lines 8-15).

D. Regarding claims 5-8 and 16-19, Burns et al. discloses that the link master devices operates as a link active scheduler (LAS) which actively schedules and controls communication on the associated segment of the bus. The LAS contains (stored query) times that each function block of each device is scheduled to start periodic communication on the bus and the length of time for which this communication activity is to occur (column 10, lines 46-55).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 10, 11, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burns et al. (US 6,088,665) in view of McNeil (US 2003/0172221).

Burns et al. discloses the limitations set forth in claim 1, but does not explicitly disclose that the data stored in the field device is encrypted utilizing a public or private key. McNeil discloses a mote that is provided within a software-latticed networked topology in which data and software programs stored within a mote can be kept secure (abstract). Encryption and public or private keys is readily known in the art to provide security for data, which is taught by McNeil. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the field device of Burns et al., to implement security for the data stored in the field device, as taught by McNeil, in order to prevent against damage, tampering, computer viruses, software piracy, unauthorized access from external agents, and other misuse to the data.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Maity et al. (US 2006/0136627)

Davis et al. (US 2002/0027504)

Petite (US 7,103,511)

Eryurek et al. (US 2002/0123864)

Aritsuka et al. (US 7,016,812)

Warner et al. (US 6,950,778)

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Lutz et al. (US 6,888,453)

Sepe, Jr. (US 6,792,321)


Christensen et al. (US 6,618,745)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nam Huynh whose telephone number is 571-272-5970. The examiner can normally be reached on 8 a.m.-5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NTH
12/7/06


GEORGE ENG
SUPERVISORY PATENT EXAMINER